CITRUS LONGHORNED BEETLE ERADICATION PROJECT

*A fact sheet from the Washington State Department of Agriculture*

# Tree injection: Another Weapon Against The Citrus Longhorned Beetle

### What is tree injection?

It's a method of delivering insecticide directly into a tree that is attacked, or likely to be attacked, by a tree-destroying insect pest, such as the citrus longhorned beetle (CLHB). This method uses a systemic insecticide (one that circulates through a plant) and only affects insects that feed directly on the tree.

### How is WSDA using tree injection to combat the citrus longhorned beetle?

WSDA plans to inject approximately 1,000 trees located in the greenbelt, along Interstate-5, and on residential properties within a one-quarter mile radius of the beetle introduction site (near the intersection of 144th Street S. and S. Macadam Road). WSDA has contracted with Eden Advanced Pest Technologies of Olympia to carry out the tree injection treatments.

### What insecticide will be used on the trees in the Tukwila quarantine area?

The active ingredient in the insecticide is *imidacloprid*. It's also found in flea treatments for pets and lawn care products.

### How does tree injection with imidacloprid work against the beetle?

Small capsules of liquid *imidacloprid* are injected into the base of a tree. Adult beetles — that had been living inside the tree as larvae for several months — emerge in early August and mate. The beetles feed on branches and leaves and, in short order, each female can deposit up to 200 eggs in numerous trees. Tree injection exposes the feeding adults and burrowing larvae to the insecticide.

### How does the actual injection process work?

The application resembles a series of shots made directly into the tree. A technician drills between two and 10 holes (depending on tree diameter) at the base of the tree. Then, a plastic spigot (injector) is inserted into each hole. Capsules containing liquid insecticide are attached to the spigots. The tree's circulatory system then absorbs the liquid, and delivers it to branches, twigs and foliage. The process takes a maximum of four hours. The trees are monitored during injection.

### Has this treatment been used elsewhere to combat the beetle?

Yes, tree injection has been a successful component of eradication programs for the Asian longhorned beetle, a pest quite similar to the citrus longhorned beetle. In the past decade, this relative of the CLHB has infested thousands of trees in Chicago and New York. Officials in both

cities have observed a reduction in the beetle population as a result of a multiple-tactic approach that includes tree injection. During 2002, roughly a quarter of a million trees in New York and Chicago will be treated with imidacloprid.

### When will treatments in Tukwila take place?

Treatments will begin July 26, 2002. Greenbelt and Interstate-5 right-of-way areas will be treated first. Tree injection on residential properties will begin the week of July 29, 2002. The process is expected to take no more than two weeks and should be completed in early August.

### What trees will be injected? Will fruit trees be treated?

Hardwood trees on the host list (those favored by the beetle) including maple, oak, willow and alder will be treated with *imidacloprid* using the injection method. At this time, WSDA has no plans to inject fruit trees. In addition, not all trees on residential properties located within the one-quarter mile area will be injected. But, in general, trees that are four inches or more in diameter at chest height will be treated. These larger trees are the most attractive to the beetle.

### How will the treatments be carried out?

Prior to treatments on residential property, a WSDA site manager will visit residents to inform them of the process. WSDA project staff will identify trees in advance so that contractor crews may treat trees efficiently. In addition, state and federal agriculture personnel will be on hand to monitor crews and ensure that they follow label directions.

### How will these treatments affect the environment?

The effect to the environment is minimal. The precise nature of tree-injection treatments prevents many potentially adverse environmental effects. Some non-targeted insects that feed on trees could be affected by these treatments, but the effects are anticipated to be temporary. Wildlife are not expected to be affected.

### Can this pesticide help trees already infested with the beetle?

*Imidacloprid* injections of already infested trees are not effective in eradicating an infestation. The only 100 percent effective way to kill the beetle is to cut down and chip infested trees.

### Where do I go for more information on the citrus longhorned beetle?

To learn more about the beetle and the infestation in Washington, visit the WSDA beetle homepage at http:/agr.wa.gov/PlantsInsects/InsectPests/CLHB/default.htm. General questions about the project may be directed to hotline, (800) 443-6684.